

**Lohmann Animal Health
Kennebec County
Winslow, Maine
A-859-71-B-A**

**Departmental
Findings of Fact and Order
Air Emission License
Amendment #1**

After review of the air emission license minor modification application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

1. Lohmann Animal Health was issued Air Emission License A-859-71-A-N on April 29, 2003, permitting the operation of emission sources associated with their manufacture of poultry vaccines.
2. Lohmann Animal Health has requested an amendment to their license for the addition of a Shenandoah Model 1-71-ITC incinerator.

B. New Equipment to be Licensed

The Shenandoah Model 1-71-ITC incinerator has the following specifications:

Class Incinerator	IV-A
No. of Chambers	2
Type of Waste	Type 4
Max. Charging Rate	250 pounds
Auxiliary Fuel Input:	
Primary Chamber (MMBtu/hr)	0.130 MMBtu/hr, #2 Fuel Oil/Kerosene
Secondary Chamber (MMBtu/hr)	0.325 MMBtu/hr, #2 Fuel Oil/Kerosene
Emission Control	Afterburner

The incinerator combustion gases vent to a 20 foot AGL (Above Ground Level) stack.

C. Application Classification

The application for Lohmann Animal Health includes the licensing of increased emissions and the installation of new equipment. Therefore, the license is considered to be a minor modification.

II. BEST PRACTICAL TREATMENT

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Air Regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Air Regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

A. New Equipment Specifications

Operating temperature in the secondary chamber or refractory lined stack shall be maintained at or above 1600⁰F with a stack gas retention time, at or above 1600⁰F, of at least 1.0 second.

To ensure an efficient burn, and to prevent odors and visible emissions, the secondary chamber shall be preheated, as specified by the manufacturer, until the pyrometer measures a minimum of 1600⁰F prior to commencing the burn cycle.

Once the burn cycle has commenced by introduction of primary chamber combustion, the incinerator shall be operated in an efficient manner, and as specified by the manufacturer, for the period of time between preheat and reaching the set operational temperature to be a minimum of 1600⁰F in the secondary chamber.

The temperature in the secondary chamber or refractory lined stack shall be maintained at or above 1600⁰F for the duration of the burn cycle.

A pyrometer and ¼ inch test port shall be installed and maintained at the location of the incinerator or refractory lined stack, which provides sufficient volume to insure a flue gas retention time of not less than 1.0 second at a minimum of 1600⁰F.

A log will be maintained recording the weight of the waste charged, preheat time, charging time and the temperature of the secondary chamber every 60 minutes after start-up until, and including, final shutdown time. For facilities operating a chart recorder, the start time, date, and weight of waste charged may be logged on the chart.

A maximum particulate emission rate of 0.12 gr/dscf corrected to 12% CO₂ will be met.

Visible emissions from the incinerator shall not exceed 10% opacity based on a six (6) minute block average basis.

The ash will be disposed of in accordance with the requirements of the Bureau of Remediation and Waste Management.

The incinerator operator(s) shall receive adequate training to operate the incinerator in accordance with the manufacturer's specifications and shall be familiar with the terms of the Air Emission License.

B. Annual Emissions

Lohmann Animal Health has the following annual emissions, based on firing 10,000 gallons of LP gas and 7,000 gallons of 0.35% sulfur #2 fuel oil or kerosene (12-month rolling total):

Total Annual Emission for the Facility
(used to calculate the annual license fee)

Pollutant	Tons/Year
PM	0.21
PM ₁₀	0.21
SO ₂	0.28
NO _x	0.72
CO	0.11
VOC	0.02

III. AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a source shall be determined on a case-by case basis. Based on the above total facility emissions, Lohmann Animal Health is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this above source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License Minor Modification A-859-71-B-A, subject to the conditions found in Air Emission License A-859-71-A-N in addition to the following conditions:

The following replaces Conditions (16) through (25) of License A-859-71-A-N:

- (16) The incinerators shall be used for the disposal of type 4 (veterinary) waste and shall not be used for the disposal of plastics (other than the bag containing the animal), cytotoxic (antineoplastic) drugs or any radioactive wastes and shall not be used to dispose of any medical waste classified as type 7 waste, as defined in Maine Air Regulations Chapter 100.
[MEDEP Chapter 115, BACT]
- (17) Incinerator Charging Rate [MEDEP Chapter 115, BACT]
 - A. The Shenandoah P16-2GT incinerator shall not exceed the maximum design charging rate of 400 lbs.
 - B. The Shenandoah 1-71-ITC incinerator shall not exceed the maximum design charging rate of 250 lbs.
- (18) A log shall be maintained for each incinerator recording the weight of waste charged, preheating time, charging time, afterburner temperature directly after charging and every 60 minutes after startup until, and including, final shutdown time. For facilities operating a chart recorder, the start time, date, and weight of waste charged may be logged on the chart.
[MEDEP Chapter 115, BACT]
- (19) The secondary chamber of each incinerator shall be preheated as specified by the manufacturer to a minimum of 1600⁰F prior to combusting any waste and shall be maintained at a minimum of 1600⁰F during the duration of the burn.
[MEDEP Chapter 115, BACT]
- (20) Once the burn cycle has commenced by introduction of primary chamber combustion, each incinerator shall be operated in an efficient manner and as specified by the manufacturer for the period of time between preheat and reaching the set operational temperature to be a minimum of 1600⁰F in the secondary chamber.
[MEDEP Chapter 115, BACT]
- (21) A pyrometer and ¼ inch test port shall be installed and maintained at that location of the incinerator or refractory lined stack which provides sufficient volume to insure a flue gas retention time of not less than 1.0 seconds at the minimum of 1600⁰F.
[MEDEP Chapter 115, BACT]

- (22) Incinerators [MEDEP Chapter 115, BACT]
- A. Lohmann Animal Health shall not exceed a particulate matter emission limit from each incinerator of 0.12 gr/dscf corrected to 12% CO₂ from the auxiliary fuel.
- B. Emissions from the Shenandoah Model P16-2GT shall be limited to the following:

Pollutant	<u>gr/dscf</u>	<u>lb/hr</u>
PM	0.12	0.14
PM ₁₀	n/a	0.14
SO ₂	n/a	0.09
NO _x	n/a	0.49
CO	n/a	0.08
VOC	n/a	0.01

- C. Emissions from the Shenandoah Model 1-71-ITC shall be limited to the following:

Pollutant	<u>gr/dscf</u>	<u>lb/hr</u>
PM	0.12	0.11
PM ₁₀	n/a	0.11
SO ₂	n/a	0.21
NO _x	n/a	0.38
CO	n/a	0.05
VOC	n/a	0.01

- (23) Visible emissions from each incinerator shall not exceed an opacity limit of 10% based on a six (6) minute block average basis.
[MEDEP Chapter 115, BACT]
- (24) Incinerator combustion gases from each unit shall vent to a stack of at least 20 feet AGL.
[MEDEP Chapter 115, BACT]
- (25) Fuel use (based on a 12 month rolling total) shall be limited to:
- 10,000 gallons of #LP gas in the Shenandoah P16-2GT.
 - 7,000 gallons of #2 fuel oil or kerosene (each fuel 0.35% sulfur by weight maximum) in the Shenandoah 1-71-ITC.

Compliance with the fuel use limits shall be demonstrated by receipts from the supplier documenting the quantity of fuel delivered (maintained on a 12-month rolling total). The records for the #2 fuel oil and kerosene shall include fuel percent sulfur as documented by receipts.

[MEDEP Chapter 115, BACT]

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The following is a new condition to Air Emission License A-859-71-A-N

- (31) This amendment shall expire concurrently with Air Emission License A-859-71-A-N.
[MEDEP Chapter 115]

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2003.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: September 16, 2003

Date of application acceptance: September 18, 2003

Date filed with the Board of Environmental Protection _____

This Order prepared by Mark E. Roberts, Bureau of Air Quality